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ABSTRACT

The most significant trends in interlibrary cooperation are summarized and some early examples and developments to the present day are selectively reviewed. Except for a small section of international library cooperation the concentration is on cooperation among public, state, special, academic, and federal libraries of the U.S.A. The efforts of library professional organizations to promote library cooperation are also covered. The entire paper is divided into two parts: cooperation by type of library organization and cooperation by function, and in each part the major problems are briefly identified. Within each topic references are made to major works treating the particular topic, and a complete citation is included in the working bibliography. Because of the need to limit treatment of this subject, developments in cooperation among school libraries, among federal departmental libraries, between libraries and the book trade, and between libraries and the indexing and abstracting services are not treated. This paper also does not discuss contributions towards standardization, such as the ANSI Committees Z39 and PH5, despite its fundamental position in support of the development of interlibrary services and systems. (Other papers from this conference are available as LI 003360 - 003364 and LI 003366 through LI 003390) (Author/NH)

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SURVEY OF INTERLIBRARY COOPERATION

by

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ABSTRACT

This summary of the most significant trends in interlibrary cooperation selectively reviews some early examples and developments to the present day. Except for a small section on international library cooperation, it concentrates on cooperation among public, state, special, academic, and federal libraries of the U.S.A. The efforts of library professional organizations to promote library cooperation are also covered. The entire paper is divided into two parts: cooperation by type of library or organization and cooperation by function, and in each part the major problems are briefly identified. Within each topic references are made to major works treating the particular topic, and a complete citation is included in the working bibliography.

Because of the need to limit treatment of this subject, developments in cooperation among school libraries, among federal departmental libraries, between libraries and the book trade, and between libraries and the indexing and abstracting services are not treated. This paper also does not discuss contributions towards standardization, such as the ANSI Committees Z39 and PH5, despite its fundamental position in support of the development of interlibrary services and systems.

DEVELOPMENTS AND TRENDS BY TYPE OF ORGANIZATION

MUNICIPAL AND COUNTY DEVELOPMENTS: Public Library cooperation has come about gradually over many decades. The most significant and persistent development has been the enlarging of administrative units. During the latter half of the nineteenth century the municipal library was generally a small independent unit supported by local taxes. About 1890 when Massachusetts created a separate agency for the sole purpose of offering library extension services, the state became involved in enlarging library units. (see Joeckel in bibliography at end of article). However, since state agencies were generally not very effective until after 1956, it was the county movement which produced the most important early cooperative developments in the public library field.

The county movement had its beginnings in 1900 when libraries in Ohio and Maryland were organized for county service. (see Morgan) Laws permitting counties to provide county library service had been enacted by 1926 in thirty-one states and the territory of Hawaii. California had the lead in county libraries with forty-three counties out of a possible fifty-eight participating. (ALA, 1926) By 1936 forty-five states had plans in which county or regional libraries were a common feature. (Nelson)

A metropolitan, county or regional "system" consists of several library units connected by a central administration which attempts to provide services which the individual units find difficult or impossible to provide separately. In a 1969 survey of 491 multijurisdictional public library systems serving 44% of the population in the United States, more than one-third provided multi-county service, and nearly half county-wide service. Just

under half the multi-county and county-wide systems were founded before 1945. "Five important services -- systematic referral of information requests, centralized processing, centralized purchasing, systemwide users' privileges, and bookmobile service -- are provided by more than three-fourths of the systems." (1)

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(1) Nelson, p. 32.

Therefore, a major part of the cooperative developments in public libraries can be attributed to the enlargement of units.

Significant encouragement of the county movement came from state aid, studies by the American Library Association (ALA), and efforts of the Works Progress Administration. The Committee on Library Extension of ALA compiled a study in 1926 which recommended that the basis for adequate rural public library service be the county or other large unit, and suggested more active participation by state library extension agencies in every state. County service demonstrations, begun in seven southern states in 1929, were sponsored by WPA projects in the thirties and later put on a permanent basis. (Morgan) One of the major problems of the public library extension movement has been the inequalities of service. By 1944, only one quarter of all U.S. counties had county libraries. (Noon)

Another major problem is the lack of systems in metropolitan areas. Systems development has been hampered by the growth of independent public libraries in suburban areas governed by a variety of political units and by the use of the older central city by suburban residents not paying taxes to the city. Both Detroit and New York have established metropolitan systems through independent commissions which do not depend solely on city taxation. The library in Detroit is operated by the Detroit Library Commission, chartered by the State of Michigan, rather than by the city government. (Campbell)

A similar independent commission, the New York Metropolitan Reference and Research Library Agency (METRO) was established in 1964. METRO has already set up a Central Advisory and Referral Service for the New York metropolitan area. (Cory)

According to the survey by Nelson Associates, the greatest obstacle standing in the way of system development is fear of loss of autonomy. A "characteristic weakness ... (of county systems is) ... unwillingness of the better established municipal libraries to become part of the system for fear of dissipating their resources." (2)

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(2) Ibid., p. 16.

Other problems frequently encountered in developing systems are shortage of staff and inadequate financial support. Insufficient funding, sometimes due to state legal limitations on taxes, appears to be the worst problem facing current systems. Despite these circumstances, directors favor expansion and further consolidation with other systems. (Nelson)

DEVELOPMENTS AT THE STATE LEVEL: Until very recently, states provided very little encouragement to the growth of larger library systems. The state did not bring about system development because it possessed neither the incentives nor the coercive power necessary to accomplish this objective.

The Library Services Act of 1956 (LSA) changed this situation. One requirement for receiving federal aid was the development by a state agency of a state plan for rural library services; it was permissible to spend funds for urban libraries if they were included as part of the entire plan. (Brown) The Library Services and Construction Act of 1964 (LSCA) also channeled its funds for public library construction through state library agencies. Title

III of the amended LSCA (1966) specifically encourages states to plan system development. (Cohen) Despite federal assistance, the development of state systems has been uneven because of the inequalities of state funds. "As of 1967, nineteen states have no state aid programs; of the remainder, eleven states account for all except a fraction of the total, $34,700,000."(3)

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(3) Ibid., P. 254.

Three states have produced strong and comprehensive statewide systems since 1956, basing their programs upon Federal assistance. These states are Hawaii, Pennsylvania, and New York. Hawaii's system is a truly state-wide, state-governed library system. LSA funds made possible a survey which established the Hawaii pattern for the statewide system passed by its legislature in 1961. (U.S. Office of Education) The entire state is included in a network of thirty-four branch libraries using uniform loan regulations and operated from the State Library without local funds. The Pennsylvania state system, inaugurated in 1962 according to a plan developed with LSA funds, has a hierarchical system of thirty districts, each with a state supported headquarters library and four regional resource centers. Reference and interlibrary service are filtered to the top. (Haas)

In the state of New York between 1946 and 1962, seven hundred public libraries became part of twenty-two systems, assisted by the Library Services Act. The New York Education Department set up a committee in 1960 on Reference and Research Library Resources (3R's) which recommended a similar hierarchical system: the county systems, nine Reference and Resource councils, three geographical referral centers, and nine subject referral centers all of which are research libraries. Reference questions and interlibrary loan requests pass

through various levels until answered. The entire system is monitored by the State Library. New York state has also experimented with a Facsimile Transmission System (FACTS) which was discontinued after a six month experience in 1967 because of technical difficulties and high costs. (Prentiss)

Other states have used teletype facilities to link their libraries for interlibrary loans. Oklahoma's teletypewriter system (OTIS) links public, academic and special libraries as well as the state library. In Texas, a statewide information network was established in 1968 to handle interlibrary loans via telephone and teletype facilities. (Shank, 1970)

In addition to statewide services in reference and interlibrary loan, some states have developed statewide technical processing. Georgia has had a state catalog card service since 1944, and by 1958 this service was furnishing thirty regional public library systems with catalog cards. (Drewry) Hawaii has statewide centralized processing for both public and school libraries. In 1966 Missouri State Library expanded two existing processing centers into a single technical processing center for all public libraries except those in the Kansas City and St. Louis areas. (Vann) According to the Nelson survey, the greatest economies from centralization occur in cataloging rather than purchasing and physical preparation. It should also be noted that one of the greatest disappointments of system service was the slow delivery of books caused by centralized processing.

The evidence can lead one to be very critical of states for the lack of suitable legislation, adequate financial support, planning and leadership. A problem facing all states is the lack of public library standards for different kinds of systems as well as the lack of detailed information on existing public library systems.

COOPERATION AMONG SPECIAL LIBRARIES: Special libraries have

cooperated in several ways in order to make the most efficient use of their resources. Larger corporations have developed centralized services for their branch libraries. General Motors Corporation has twenty-two company libraries; however since 1927 all interlibrary loans have been handled through its central library. (Jackson) Using remote on-line terminals, IBM has a technical processing network based in Poughkeepsie in which seven of its far flung libraries voluntarily participate, perserving individual library autonomy while achieving economical sharing of the system. (Wolpert) Smaller corporate libraries have developed arrangements with other corporate libraries. In Minneapolis, six small companies formed a cooperative library association by 1963, coordinated their buying, encouraged interlibrary loans, and discussed mutual problems. (Miller) As another example, the Associated Science Libraries of San Diego, established in 1963, includes corporation libraries, universities and colleges, public libraries, government agencies and museums. It has produced a union list and facilitated research through referrals. (Budington)

The federal government has encouraged cooperation of special libraries through the State Technical Services Act of 1965 which contributed federal funds to state programs for making scientific and technical information available to business. (Stevenson) These funds have made possible a "Regional Information and Communication Exchange in Houston, the Industrial Information Service in Dallas, and a program in California that links the State Library, UCLA, and public libraries in the Fresno County area--all to serve industry." (4)

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(4) Shank, 1969, p. 66.

The State University of New York Biomedical Communication Network is an example of special library cooperation using the latest technology. Operational in 1968, it links the four medical centers of

SUNY with ten agencies' medical library facilities. Computer based bibliographical files maintained in Syracuse contain the NLM Catalog 1966 to date, five years of MEDLARS records, the records of three SUNY medical libraries 1962 to date, union list of serial titles from SUNY, and selected entries from the Harvard University Countway Library of Medicine 1968 to date. This file can be accessed via typewriter terminals. (Biomedical Communication Network)

College and research libraries have also made special arrangements to cooperate with special libraries. Stanford University Libraries established a separate library office in 1958, called the Technical Information Service, now serving over 300 industrial and commercial firms. Regular members pay for each citation delivered, and the membership provides reading room use, loans, photocopy service, interlibrary loans from outside Stanford, and the right to recommend purchases. Thus the TIS provides a switching service between a major research library and local special libraries. (Weber, 1963) Massachusetts Institute of Technology also maintains a similar formal program of services with an annual fee. (Nicholson)

The unique problem of independent special libraries is their generally small, mission-directed collections and their necessarily cost-effective evaluation. They are not of a scale to compare with the large special libraries or academic libraries, yet the best of them are noted for providing useful, aggressive, service to companies. Because of these facts, however, the balance of interlibrary loan requests is all on the side of the special library which must depend on outside resources for frequent assistance. According to a survey of interlibrary lending among industrial corporation libraries, they borrowed an average of 335 volumes per year and lent fifty-seven volumes a year. (Shank, 1969) "Several studies note that special libraries are filling nearly 100 per cent of all requests made of them with considerable reliance on other libraries." (5)

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(5) Ibid., p. 63.

Therefore, networks which will provide rapid transfer of information as and when needed may offer the best solution for satisfying the needs of special libraries.

ACADEMIC LIBRARY COOPERATION: Cooperation among academic and research libraries has taken many forms: acquisitions, cataloging, interlibrary lending, and automated services which are treated below by function. Here is treated interinstitutional cooperation consisting of informal and "formal agreements between wholly independent libraries, contractual arrangements between two or more libraries, merging of two or more libraries, and reorganization of state institutions of higher education into one system and unification of their libraries." (6)

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(6) Lowell. p. 31-32.

In sharp contrast to municipal, county, state, and special libraries where the vast majority of significant interlibrary developments have come in the past fifteen years, academic and research libraries have had major programs for seventy years -- with substantial expansion in type of programs during the past forty years.

An example of an informal arrangement among several institutions is CLUNY, the Cooperating Libraries of Upper New York. Formed in 1931, it included Buffalo University, Colgate University, Grosvenor Library, Hamilton College, Syracuse University, Cornell University, and Union College. This group functioned until 1939 as a clearinghouse for mutual problems and cooperated on a union list of periodicals and the joint purchase of microfilm of early English publications. (Lowell) Three of the original members of CLUNY

(Buffalo, Syracuse, and Cornell) are now part of FAUL (Five Associated University Libraries) which has compatibility of computer systems as a chief emphasis. (McCarthy)

An example of a formal agreement between independent libraries is the Duke/North Carolina Inter-Library Project. In 1931, Duke University and the University of North Carolina decided upon special collecting areas. With a grant from the General Education Board, the libraries were able to exchange author cards from their catalogs; in 1935 a messenger service was inaugurated. Two more North Carolina institutions joined in 1955 and full borrowing privileges were extended to all members. (Ertell)

A contractual arrangement among several libraries is the Joint University Libraries founded in 1938 by Vanderbilt University, George Peabody College, and Scarritt College. Operating under a Joint Board of Trustees, the facility is an independent entity, jointly owned and financed by the participants. (Ertell) The Claremont College library system began in 1931 when a contractual arrangement among Claremont Graduate School, Pomona College, and Scripps College established a joint order and catalog department to serve the three libraries. (Lowell) There is now a common facility, the Honnold Library, constructed in 1952, serving six Claremont Colleges: Claremont Graduate School and University Center, Claremont Men's College, Harvey Mudd, Pitzer, Pomona, and Scripps Colleges.

An example of the merger of two or more libraries is the Atlanta Center Trevor Arnett Library in Atlanta, Georgia. Built with a grant from the General Education Board in 1932, it serves six colleges of Atlanta: Atlanta University, Morehouse College, Spelman College, Morris Brown College, Clark College, and Gammon Theological Seminary. (Lowell)

Another variation of interinstitutional cooperation, unification of research libraries under state control, was pioneered

by the Oregon State Board of Higher Education in 1932. The Board appointed one director of libraries for the entire state system, established the principle of free circulation among all state institutions and set up a central order division which now takes the form of "a combined author list of all books and periodicals in the State System ... maintained in the Order Department of the Oregon State University Library in Corvallis to ... eliminate unnecessary duplication of materials." (7)

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(7) Oregon, State University, BULLETIN; CATALOG ISSUE, 1968/69 (Corvallis, Oregon: Oregon State University, 1968), p. 10.

The University of California at Berkeley AUTHOR-TITLE-CATALOG published in 1963 to share research resources: and the UCLA catalog which followed, were part of the broad program of cooperation among the campuses of the University of California recommended by the All University Faculty Conference and formalized by the Regents in September 1961. The State University of New York (SUNY), established in 1948, has sixty colleges and centers presently in operation. In 1966, the central SUNY administrative staff drew up a program for library development including the establishment of a university wide communications network, a computer based union catalog for holdings of the entire system, and a processing center for the acquisition, cataloging, and physical preparation of new material. (Cox)

More recent forms of interinstitutional cooperation will be discussed in a section of this paper on Consortia. None of the above developments is frequent enough to enable a distinct trend to be discerned. Major needs are standards or criteria for assessing progress, compilations of detailed data on existing arrangements, more funds to provide experimentation, and greater efforts by librarians to

design more effective cooperative endeavors.

FEDERAL LIBRARIES AND LEGISLATION: Library cooperation has resulted from centralized services provided by the "national" libraries, from their efforts to standardize the automation of libraries, and from federal legislation aimed at coordinating efforts of libraries.

The Library of Congress, founded in 1800 as a library for the national legislature, now provides significant instances of centralized services for the nation in acquisitions, cataloging, and interlibrary loan. LC began acquiring foreign government documents in 1867 through cooperation in an international exchange program, and took on an aspect of a national library in 1870 when two copies of every work copyrighted in the United States were automatically deposited in the collection. In 1965 LC began acquiring a more comprehensive collection of foreign publications through a cooperative program, the National Program for Acquisitions and Cataloging (NPAC) which will be described later.

The Library of Congress made printed catalog cards publicly available for every book it cataloged after 1901. It also began building a National Union Catalog in 1901, the expansion and publication of which is reviewed below.

LC, in addition to its centralized acquisitions and cataloging services, maintains a vast interlibrary loan program. "Materials from the Library's collections that are not at the moment in demand by Congress and the rest of the Government, and that cannot be obtained otherwise, are now lent to other libraries in this country and abroad when there is a genuine scholarly need." (8)

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(8) U. S. Library of Congress, 1969, p. 457.

According to the annual report of LC, there were one quarter of a

million volumes loaned during 1968.

The National Library of Medicine (NLM) was formed from the Army Medical Library by an act of 1956. NLM mechanized its indexing services in 1960, and three years later it began storing these citations on the computer for use in MEDLARS (Medical Literature Analysis and Retrieval System) which produces twenty-one major indexes including INDEX MEDICUS, a monthly index to 2,200 of the world's biomedical journals. As a result of the Medical Library Assistance Act of 1965, MEDLARS tapes are made available on a regional basis for bibliographic searching. There are presently eleven MEDLARS stations and eight Regional Medical Libraries participating in an informational network offering bibliographic and reference services and interlibrary loans. NLM has a massive interlibrary loan program, making loans available in photocopy form. A major problem created by the large-scale photocopying is the possible violation of copyright; a 1968 legal suit was brought against the National Library of Medicine in this regard.

The Department of Agriculture Library was designated as a national library in 1962, becoming the National Agricultural LIBRARY (NAL). It compiles a comprehensive listing, the BIBLIOGRAPHY OF AGRICULTURE, and produces PESTICIDES DOCUMENTATION, a bi-weekly index of worldwide literature, and related research. Both NLM and NAL have made their catalogs available in book form. In 1967, the first volumes of the DICTIONARY CATALOG OF THE NATIONAL AGRICULTURAL LIBRARY, 1862-1965 were published. In 1968 both also began issuing a current book catalog. (Shachtman)

A Federal Library Committee was formed in 1965, serving to promote greater cooperation among the federal libraries through formal interlibrary lending arrangements, standards for personnel and management, common procurement procedures, and correlation of resources.

Two years earlier the basic overall plan was adopted for automation of the Library of Congress's bibliographic system, the King report: AUTOMATION AND THE LIBRARY OF CONGRESS. One of the long range purposes of the LC automation program was "to enhance interlibrary cooperation and secure for the individual user the benefits of the community of library resources." (9)

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(9) King, p. 3.

In June of 1967 a National Task Force on Automation and other Cooperative Services was announced by the directors of the three national libraries to establish a national bank of machine readable cataloging and serials data as well as compatability in subject headings and classification schemes used by the three libraries. Several of their recommendations on standardizing of automation procedure have already been accepted including a standard format for communication of bibliographic data, MARC-Machine Readable Cataloging. (Lazerow)

National legislation has also played an important role in increasing cooperation. In 1936, the Library Services Division was created in the U.S. Office of Education to act as "a central clearinghouse for library planning and statistics gathering, and a source of information and guidance for all types of libraries." (10)

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(10) Johnson, p. 330.

The Higher Education Act of 1965 initiated the NPAC program which directed the Library of Congress to acquire on a comprehensive basis currently published foreign scholarly material and to catalog it promptly. (Dix) The next year President Johnson established a National Advisory Commission on Libraries which recommended the establishment

of a Federal Institute of Library and Information Science, which "should have as one of its major responsibilities the system engineering and technical direction involved in the design and implementation of an integrated national library and information system ..." (11)

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(11) U.S. President, p. 518.

The Higher Education Act was amended in 1968 to include Title VIII, Networks for Knowledge, as yet unfunded, which encourages the sharing of resources by cooperative arrangements among colleges and universities. (Overhage)

Problems of cooperation on a national level include: 1) the possibility of more limiting copyright laws and the unresolved position of computer data files under copyright, 2) tremendous costs of technological innovations necessary to future maintenance of adequate library service, 3) the lack of a really strong congressional mandate for the Library of Congress to exert national leadership, and 4) the lack of a permanent National Commission on Libraries and Information Science to promote full, coordinated, and effective library services to all of the nation.

COOPERATION FOSTERED BY PROFESSIONAL ORGANIZATIONS: Library associations have developed largely because of the need for cooperation among libraries. Cooperative effort has been a prime focus in the programs of the American Library Association, founded in 1876, the Medical Library of 1898, the American Association of Law Libraries, 1906, the Special Libraries Association, 1909, and others. One that has contributed notably to cooperative efforts is the Association of Research Libraries, formed in 1932. Its object is "by cooperative effort to develop and increase the usefulness of the

research collections in American libraries." A Council of National Library Associations was deemed necessary in 1942 "to promote a closer relationship among the national library associations of the U.S. and Canada." In 1969, two library associations specifically designed to promote cooperation were founded. One, the Association of Cooperative Library Organizations has the aim of providing "a channel for the exchange of information on cooperative ventures and to disseminate information about significant developments in library programs." The other, the Association of Caribbean University and Research Libraries, hopes "to develop cooperation among member libraries as one of the first steps in interinstitutional cooperation."

Within the American Library Association many units have played a significant leadership role in promoting cooperation. Its committees have since 1877 developed several editions of national cataloging codes. As early as 1896, ALA's publishing section printed catalog cards. It was an ALA committee which in 1901 encouraged the Library of Congress to begin its card service. The ALA Cooperative Cataloging Committee, in conjunction with the Library of Congress, initiated a program in 1932 for LC to receive and edit card copy from cooperating libraries for new foreign books and monographs, state and city publications, and dissertations. (Downs, 1945) The ALA's Committee on Coordination of College Libraries passed the first inter-library loan code in 1917. (Winchell) This code has since been revised several times, and a standard form devised. The Resources and Technical Services Division of ALA presently has a Forms Standardization Committee and has developed photographic, bibliographic, book catalog, and reprinting standards. ALA has also published standards for public libraries and junior college and college libraries.

The Special Library Association publishes SPECIAL LIBRARIES in the first volume of which (1910) was a resource directory to about

one hundred special libraries in twenty-three subject fields. The SLA through its geographical chapters and subject divisions has coordinated efforts in the entire country. It has issued four national directories of libraries and three directories of resources, and has encouraged union lists of serials, one of the major being THE UNION LIST OF PERIODICALS IN SPECIAL LIBRARIES IN THE NEW YORK METROPOLITAN DISTRICT, published in 1931. SLA established a lending pool of special subject classification schemes. SLA has also promoted book exchanges by a routine for circulating lists of duplicate materials. (Budington)

The Association of Research Libraries has participated in a large number of cooperative projects. Since its first session, the organization has initiated or sponsored efforts in the areas of centralized cataloging, cooperative acquisitions, interlibrary loans, joint microfilming projects, union catalogs, and bibliographic centers. It was the ARL which sponsored the project to first publish the Library of Congress catalog in book form. ARL was the major force behind the Cooperative Acquisitions Project which obtained material from Europe during the war, and later became the Farmington Plan. (ARL, 1940) It created the cooperative Foreign Newspaper Microfilm Project, the prototype for such endeavors. (ARL, 1955) ARL's Shared Cataloging Committee was also largely responsible for developing the NPAC program which in 1965 accelerated processing and encouraged more comprehensive collections on the part of LC. (ARL, 1965)

The ALA Council three years ago adopted as one of its "Goals for Action" the development and support of a national system for information retrieval. Upon initiative of the ALA Resources and Technical Services Division, with support of the Information Sciences and Automation Division and the Reference Services Division, and with the cooperation of eleven other professional organizations, the U.S. Office of Education Bureau of Research funded an ALA proposal for the

present invitational conference on interlibrary communications and networks.

Professional associations are as strong as their membership. Cooperation among associations has been all too scarce. Funds for research come almost entirely from outside agencies or foundations. Improved financial support is desirable since they have accomplished and can accomplish so much to advance interlibrary cooperation for more effective information services.

COOPERATION AT THE INTERNATIONAL LEVEL: Library associations have played an important role in international library cooperation ever since 1877 when several librarians who had attended the first ALA Convention went to London to attend the founding conference of the Library Association. (Utley) The first international organization to achieve any influence in librarianship was the International Federation for Documentation (FID), founded in 1895 as the International Institute of Bibliography.

In 1924, the League of Nations established the Institute of Intellectual Cooperation which arranged international conferences of librarians and was responsible for bibliographies such as INDEX BIBLIOGRAPHICUS and INDEX TRANSLATIONUM. The next organization to be founded was the International Federation of Library Associations (IFLA), created in 1927. Since World War II the United Nations' Educational, Scientific, and Cultural Organization (UNESCO) has been responsible for an ambitious program of publications which have assisted libraries in all countries. The UNESCO BULLETIN FOR LIBRARIES, begun in 1947, is devoted to library matters of international interest. The Florence Agreement of 1950 concluded under the auspices of UNESCO has facilitated the free circulation of international publications by reducing or eliminating trade and tariff barriers. In addition, UNESCO has supported FID in its work in

developing the Universal Decimal Classification, and "IPLA has succeeded in achieving important stages in international cooperation, as, for instance, the agreement on international interlibrary loan in 1954 and the International Conference of Cataloguing Principles held in Paris in 1961 with the help of UNESCO ... " (12)

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(12) Wormann, p. 347.

Another international organization, the international Atomic Energy Agency, (IAEA), has developed a cooperative scheme to disseminate atomic energy information -- the International Nuclear Information System, to begin operation in 1970. Member states will put into a data bank the full text of articles on nuclear science with a bibliographic description, keywords, and an abstract. This information will then be made available from the IAEA on magnetic tape or microfiche. (Woolston) The Pan American Union and the Asia Foundation have also contributed much to interlibrary develpments.

Most countries have significant examples of interlibrary cooperation, yet only a few examples from one country will be mentioned. Great Britain has developed a number of cooperative programs among its libraries. (Jefferson) The comprehensive BRITISH NATIONAL BIBLIOGRAPHY (BNB) established in 1950 is a product of cooperation among the British Museum, the Library Association, the Publishers' Association, and seven other bodies. (U.S. Department of Commerce) In 1950, the British subject-specialization scheme was developed whereby libraries in a region of England are assigned a specific subject and agree to buy every book listed in the BNB in their assigned subject. An Interregional Coverage Scheme, an expansion of the above, began in 1959 to coordinate all the regions into a national system. (Esterquest, 1961) British publishers adopted in 1967 a Standard Book Numbering System which will undoubtedly have

an effect on interlibrary cooperation throughout the world. (Standard Book Numbering)

There has been international cooperation due chiefly to the efforts of UNESCO which has the funds available to promote cooperation and the authority to call conferences. Unfortunately, on a national level, resolutions resulting from such conferences generally have only the effects of a recommendation. The major problems confronting international cooperation of libraries is the voluntary nature of commitments. Every country must accept the standards of the group on a voluntary basis. Cataloging and transliteration rules are good examples.

DEVELOPMENTS AND TRENDS BY FUNCTION

BIBLIOGRAPHIC COOPERATION: One of the most important trends fostering interlibrary cooperation has been the development of bibliographic compilations. American libraries have developed resource lists, union lists, bibliographic centers, book catalogs, and union catalogs.

The earliest national resource list, indexed by subject and describing library collections and catalogs, is William C. Lane and Charles K. Bolton's 1892 NOTES ON SPECIAL COLLECTIONS IN AMERICAN LIBRARIES. This resource directory has been followed by a large number of similar directories.

"A complete record of the holdings for a given group of libraries of material of a given type, in a certain field or on a particular subject" is a union list. The first major national union list was Henry C. Bolton's A CATALOGUE OF SCIENTIFIC AND TECHNICAL

PERIODICALS (Washington: Smithsonian Institution, 1885), though this list did not give exact statements of holdings. Following the Boston list, suggestions for a comprehensive, national list, indicating exact locations, culminated in 1927 with publication of the UNION LIST OF SERIALS ..., having entries for 75,000 serial titles and listing holdings for 225 libraries. "It was rightly hailed as the most notable bibliography ever sponsored by American libraries ..." (13)

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(13) UNION LIST OF SERIALS IN LIBRARIES OF THE UNITED STATES AND CANADA, 3rd ed. (N.Y.: Wilson, 1965), preface.

The third edition of the UNION LIST OF SERIALS ..., published in 1965, contains 157,000 entries locating journals in 956 libraries.

In addition to periodical union lists, American libraries have cooperated to produce union lists of newspapers, foreign serial documents, microfilm, and manuscripts. These union lists have all had a pattern of development similar to that of the UNION LIST OF SERIALS. They have used previous lists in compiling their list, have invited cooperation of large numbers of libraries, have been aided by a foundation grant, have been sponsored by an association, and have received assistance from the Library of Congress.

Union catalogs are an important form of bibliographic cooperation, made possible by uniform cataloging rules and standard sized catalog cards. In 1901, the Library of Congress began building the first national union catalog by collecting cards from government libraries in Washington, D. C. and from the New York Public, Boston Public, Harvard University, the John Crerar Library, and several others. The Union Catalog was arranged in a single author alphabet by 1909 when the contributions of cards from nine libraries had accumulated. (Richardson) In 1927, the American Library Association

secured a grant from John D. Rockefeller, Jr. to finance a major expansion of the union catalog. (Schwegmann)

The first major regional union catalog was organized in 1909 in California incorporating primarily public library catalogs. However, major union catalogs increased sharply in number between 1932 and 1940 when seventeen catalogs were established, many through the assistance of the WPA. (Berthold) A number of these regional catalogs were added to the National Union Catalog so that by 1968 the National Union Catalog contained more than 16,000,000 cards, representing about 10,000,000 titles and editions. (Williams, G.)

During the nineteen thirties, with the assistance of WPA, another form of bibliographic cooperation was developed -- the bibliographic center. These centers maintain union catalogs for their respective area and serve as centers for the exchange of interlibrary loan information. They have maintained large collections of printed bibliography, including LC catalogs. The centers depend upon financial support from their member institutions. The Bibliographic Center for Research, Rocky Mountain Region, Denver, was established in 1934 as a bibliographical collection which would serve the needs of Colorado libraries. The Pacific Northwest Bibliographic Center, Seattle, was founded in 1940 with a Carnegie grant of $35,000 to the Pacific Northwest Library Association. One of the problems of these centers is the possibility they will atrophy if they do not improve accessibility through regional union catalogs in book form or on-line terminal access for recent materials.

Another bibliographic trend has been the increased use of book catalogs. The first printed catalog of an American library was the Harvard College Library catalog published in 1723. The size of collections and the cost of book catalogs were major factors in deterring more widespread use between the 1870's and the 1950's. Probably the most important book catalog yet published is A CATALOG OF

BOOKS REPRESENTED BY LIBRARY OF CONGRESS PRINTED CARDS ISSUED TO JULY 31, 1942, published by Edwards Brothers, Inc., of Ann Arbor, Michigan, for the Association of Research Libraries.

When the ALA's Board on Resources Sub-committee on the National Union Catalog urged an expanded printed author catalog which would include entries of other libraries, LC began in 1956 publishing the National Union Catalog in book form. (Cronin) In 1963 the ALA and LC decided to publish the National Union Catalog (prior to 1956) in book form, and contracted with the firm of Mansell/Information Publishing Limited in England for its publication. The first volumes of THE NATIONAL UNION CATALOG PRE-1956 IMPRINTS were published in 1968. There are presently over five hundred libraries participating; therefore, the publication of this catalog will be a culminating effort of union catalog development.

The trends in bibliographic cooperation seem to point to lists of resources which cover more titles and record the holdings of more libraries, development of bibliographic centers on a regional basis, a more comprehensive national union catalog, and finally, a pattern of computer based indexes and abstract services.

ACQUISITIONS COOPERATION: Libraries continue to purchase publications which will serve the needs of their particular community. However, as librarians have become better informed of national resources through the aid of union lists, union catalogs, and resource lists, they have begun "to think of their holdings within a larger frame of reference, as segments of a national resource ..." (14) Some forms of acquisitions cooperation are specialization agreements,

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(14) Downs, 1970, p. 412.

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cooperative buying programs, centralized buying programs,

exchange arrangements, photocopying of important research material, and shared book storage centers.

An early specialization agreement was made between the New York Public Library and Columbia University Library in 1896 whereby certain subject areas were allocated to one library or the other. (Johnston) In the same year, the Chicago Public Library, the John Crerar Library and the Newberry Library divided subject responsibilities in acquisitions. (Martin)

On a local basis, acquisitions specialization was prevalent during the late 1930's and the early 1940's. In 1941, the ALA Board on Resources convened a meeting of librarians to undertake a national plan for resources specialization, yet this conference and a similar regional conference in the Pacific Northwest in 1943 failed to produce any lasting results. The failure evidently resulted from the need of each institution to serve its particular teaching and research program. (Esterquest, 1961) One might also say that when funds are scarce (e.g. from the Depression) a library must meet its essential local needs, and in more affluent times extra resources can be afforded through cooperative or division-of-responsibility arrangements.

A major change in the attitude of institutions toward national specialization agreements occurred as a result of World War II. Due to great concern about the feasibility of acquiring European research materials, the Library of Congress sponsored a conference at Farmington, Connecticut in 1942. As a result, a committee headed by Keyes Metcalf was appointed to develop a plan which later became known as the Farmington Plan, the first nationwide specialization agreement. (Williams, E.) The proposal establishing this plan, "Proposal for a division of responsibility among American libraries in the acquisition and recording of library materials", was approved by ARL in 1944 and working plans were drawn up. (ARL, 1946) These working papers were

used by the 1946 LC mission to Europe, the Cooperative Acquisitions Project, through which 115 libraries ultimately received 800,000 volumes according to subject allocations.

The experience of the Cooperative Acquisitions Project stimulated acceptance of the Farmington Plan. Begun in 1948 with three Western European countries, the plan was designed to acquire at least one copy of each new foreign publication according to a subject scheme, to list it in the National Union Catalog, and make it available for interlibrary loan. By 1961 the plan covered 146 countries, and libraries had country and/or subject responsibilities. (Williams, E.) The plan is now being reassessed in view of the PL480 and NPAC program. (Current Notices)

In 1954 Public Law 480 made available surplus agricultural products to soft-currency nations. These countries purchased produce with local currencies which accumulated unspent. In 1961 the Library of Congress, supported by ARL and the American Council of Learned Societies, sponsored legislation for a plan to acquire publications of India, Pakistan, and the United Arab Republic using unspent local currencies. The Public Law 480 Plan expanded to six countries by 1965 and 1,531,745 items were sent to American libraries. LC maintains overseas selections teams in the countries involved; LC publishes accession lists for these acquisitions and the libraries contribute funds for cataloging. (Skipper)

LC initiated a major centralized acquisitions program when in 1965 Title IIC of the Higher Education Act authorized federal funds "for the purpose of 'acquiring, so far as possible, all library materials currently published throughout the world which are of value to scholarship.'" (15)

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(15) Mumford, p. 9.

The NPAC program has also established regional offices in under-developed areas of Asia and Africa and these offices have published accession lists and helped libraries to secure publications not available in the trade. (U.S.Library of Congress. Processing Department, NPAC PROGRESS REPORT, no. 10).

In 1941 a group of Colorado college librarians proposed centralized book buying. However, no project resulted until 1967 when a study indicated the feasibility of establishing a centralized processing center for Colorado academic libraries. (Leonard) With the support of a National Science Foundation grant, the Colorado Academic Libraries Book Processing Center began a one year experiment last year. The Center processes book orders, catalogs these books, and physically prepares them for nine institutions.

Centralized buying for research libraries has also been accomplished through agents. In 1944, Keyes Metcalf proposed a documents expediter, an agent who would help secure documents which were not issued through the U.S. Superintendent of Documents, since there was concern on the part of libraries that they would not be able to secure declassified documents from the war period. In 1946 a documents expediting office was set up in the Library of Congress sponsored jointly by the ALA, ARL, SLA, and AALL. (ARL, 1946) In 1967/68 the Library of Congress reported 142 subscribers to this cooperative centralized service received some 241,000 items.

Sending agents to foreign countries for the procurement of library materials may have had its beginning in 1911 with Walter Lichtenstein's buying trips to Europe and Latin America on behalf of Northwestern University and other American libraries. Much later SALAM (Seminars on the Acquisition of Latin American Materials) recommended that a commercial agent be used to procure Latin American materials for academic libraries, and as a result the Latin American Cooperative Acquisitions Project (LACAP) was organized in 1960 by the

University of Texas, the New York Public Library, and Stechert-Hafner, Inc. Currently there are thirty-eight libraries subscribing to the plan and the Library of Congress is providing rush cataloging for LACAP materials. (Shepard) A total of 19,791 imprints from Latin America were shipped to this country during 1960-65 under the LACAP plan. (Savary)

Exchange arrangements are another important form of cooperation in the area of acquisitions. The first suggestion for an American exchange came from a French citizen, Alexandre Vattemare, in 1839. In 1848 the Smithsonian Library sent its first publication out to institutions throughout the world; and by 1850 Mr. Henry, the Secretary of the Smithsonian, reported that "most of the distinguished foreign literary and scientific societies have placed the Institution on their list of Exchanges." (16)

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(16) U.S. Library of Congress, 1953. p. 10.

Library associations have had exchange systems since 1899 when the Medical Library Association established its exchange operation. The Association of College and Reference Libraries (ACRL) established the Periodical Exchange Union in 1940, now called the Duplicate Exchange Union. It functions by circulating lists of duplicates to libraries in the order of the size of their collections.

The most active exchange organization in the world is the U.S. Book Exchange, which succeeded the American Book Center for War-Devastated Areas. It was established in 1949 with the assistance of a Rockefeller grant. (McAnally) Stock is sufficiently large, four million items, to allow both American and foreign libraries to send and receive duplicates.

One of the more important trends in acquisitions has been the cooperative microfilm projects for dissertations domestic and foreign,

foreign newspapers, official gazettes, and archival materials. A prototype was developed when in 1938 Harvard University secured a grant from the Rockefeller Foundation for the purpose of currently microfilming a number of major foreign newspapers, and positive copies were offered for sale to other institutions. After fourteen years this project was transferred to ARL as a shared-copy plan. (Weber, 1956) Another important effort has been the attempt to register in one list all the master microfilm copies.

In 1965 a Center for the Coordination of Foreign Manuscript Copying was established at the Library of Congress with a grant from the Council on Library Resources (CLR). It has proved effective as a clearinghouse for microfilm projects since it enables libraries to cooperate in the microfilming of manuscripts like the Austrian State Archives dealing with foreign affairs during the 19th century, thus lowering the costs and avoiding duplication of efforts. (ARL, 1968)

President Eliot of Harvard had in 1902 advocated a storage facility for little used materials; and it was in Boston, in 1939, that this idea was discussed informally again. Two years later the Massachusetts legislature chartered such an institution: The New England Deposit Library (NEDL), which opened in 1942 as a storage library owned and operated by eight libraries. (Metcalf) The primary purpose of the depository was low cost storage. By 1960 there were eleven Boston area members of NEDL.

John Fall and Keyes Metcalf carried out a survey for thirteen university presidents in the Middle West which recommended a storage facility. This facility was incorporated in 1949 as the Midwest Inter-Library Center, Chicago, with the aid of grants from the Rockefeller Foundation and the Carnegie Corporation totalling $1,000,000 and opened in 1951 with ten univeristy libraries as members. Now called the Center for Research Libraries, it is located in Chicago. Its original purpose was to house, organize, service, and

under certain circumstances to own, infrequently used materials. (Fischer) This last purpose has been the most important facet of the Center's work. ARL recently urged all of its members to join the Center which presently has fifty full and associate members and a collection of approximately 2,750,000 volumes. (ARL, 1970)

A third storage center, the Hampshire Inter-Library Center, was established in 1951 by Amherst, Mount Holyoke, Smith College, and the University of Massachusetts. This center is primarily a storage center for little-used serials and it has a small acquisitions fund for expensive sets and rarely consulted serials. (Harrar) Recently, another storage center was established for medical libraries in New York, the Medical Library Center of New York. (Kilgour)

Acquisitions cooperation is not possible without strict adherence to specialization agreements which require some monitoring. Even formal agreements do not have the standing of a binding contractual agreement; furthermore, the only agreements that are viable are those among consenting parties continuingly convinced of their merits.

CATALOGING COOPERATION: The general trend of interlibrary cooperation in cataloging has been toward centralized cataloging. There have been four major developments: centralized cataloging, cooperative cataloging, cataloging-in-source, and shared cataloging. The Library of Congress has been heavily involved in all of these developments.

Centralized cataloging, or cataloging done by a central agency, has had a long history starting with the Smithsonian Institution in 1853. The Library Bureau offered centralized card services to libraries in 1894 and ALA took over these services in 1896. In 1897 R. R. Bowker suggested that the Library of Congress undertake a centralized card service, and the ALA Publishing Board and the Library of Congress reached an agreement in 1901 whereby the

latter was to supply printed cards for current books. In 1967/68, the LC Card Service reported that approximately 25,000 libraries, firms and individuals bought 78,767,377 cards.

Cooperative cataloging or the supplying of copy to a central agency began in 1901 when the Library of Congress received copy from other libraries for the printing and distribution of cards. The Library of the Department of Agriculture was the first library to contribute. In 1910 LC asked the libraries receiving LC card sets "on deposit" to supply copy for the card service and about one-third agreed to assist the Library of Congress. A cooperative Cataloging Division was formed at LC in 1932, but recently libraries have submitted copy directly to the National Union Catalog. (Dawson)

Cooperative processing on a local and regional level is on the increase. There has been a large increase in public library regional processing centers since 1958. At a typical processing center, original cataloging is kept to a minimum and LC proof sheets are used for cataloging. Unfortunately increasing costs and delays in cataloging are problems which these centralized units face. (Hiatt)

Another important cataloging trend, in the public and school library fields, is the increase of commercial cataloging services. The first commercial firm to offer such a service was the H. W. Wilson Co. in 1938. In 1958 one firm offered both catalog cards and book preparation and by 1968 over fifty firms were in the commercial cataloging business. (Westby) This rise can be attributed to government support of library purchases; the majority of firms serve school libraries.

The Cataloging-in-Source Program of 1958-59 was a one year experiment designed to expedite LC cataloging. After LC had cataloged from page proofs, a facsimile of the catalog card was published in each title. Although this program was much in demand as a cooperative venture, it was abandoned as financially and technically unfeasible.

(U.S. Library of Congress, 1960)

The Shared Cataloging Program, the culmination of the centralized cataloging movement, as mentioned above, was developed as a part of NPAC under the Higher Education Act of 1965. In 1964 an ARL survey revealed that forty-seven research libraries had reported that an average of 46% of titles acquired received original cataloging. Therefore the ARL Committee on Shared Cataloging suggested that the Library of Congress expand its cataloging program. As a result, Title IIC of the Higher Education Act was passed specifically for the purpose of acquiring books on a world-wide basis and assuring prompt cataloging. In April 1966 LC officials met with officials of the BNB (British National Bibliography) to arrange both for advance copies of BNB and blanket order deliveries of current British imprints. With such an arrangement LC is able to use the data prepared by BNB and thereby speed up its own cataloging process. When this agreement proved successful, the Library of Congress immediately set up procurement centers overseas. (Mumford) The Shared Cataloging program presently involves a blanket order arrangement with a dealer in each of the twenty-two countries, advance copies of the national bibliography of the respective countries, prompt cataloging of titles based upon the cataloging from the national bibliography, and rapid distribution of cards to more than eighty participating research libraries. (U.S. Library of Congress, 1970)

Although the trend has been toward centralized cataloging, there are major problems which have hampered the ability of libraries to use LC centralized cataloging data. One is the fact that no library system - not even NUC - has all editions of all titles, thus much local cataloging must remain. Urgency for use presses many libraries of all types to be unable to wait for centralized or cooperative cataloging. Special in-depth collections and local historical bibliographic idiosyncracies require some

additional local tailoring of LC cataloging copy. The problem of the time required for LC cards to be produced is still a serious concern. And, finally, the problem of economically reproducing a card from a printed book catalog or trade list remains unsolved effectively.

Besides the haunting promise of cataloging data printed in the publication, one solution for making card sets available more quickly could be LC's MARC service, when it becomes economically feasible for libraries to use computers for reproducing cards for full sets with headings presorted for filing.

INTERLIBRARY LOANS: One of the most important facets of interlibrary cooperation, interlibrary lending, is on the increase. For example, in 1927/28 the Library of Congress loaned 3,723 volumes; forty years later it loaned 258,573 volumes. This marked increase is typical for all libraries.

The first recorded note of interlibrary loan agreements in the United States occurred in the LIBRARY JOURNAL of 1876. Samuel S. Green, librarian of the Worcester Free Public Library, suggested that lending books between libraries would increase the usefulness of the collection. He further suggested that libraries rather than individuals engage in the lending. In 1917, the ALA Committee on Coordination of College Libraries drew up the first interlibrary loan code. It is interesting to note that the code stated: "If a photographic reproduction would be a satisfactory substitute, librarians should always state the fact." (17)

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(17) Winchell, p. 14.

This code was revised in 1940, 1952, and in 1968. A standard interlibrary loan form was adopted in 1951. (Uridge)

As a clearinghouse for the location of books wanted on

interlibrary loans and with the agreement of ARL, LC began in 1936 the system of circularizing research libraries for books not in LC and adding information to the National Union Catalog when a copy of a title was found. About 82% of requests are now filled by locating the titles in the National Union Catalog and, for those not found, by circularizing in the "Weekly List of Unlocated Research Books." (U.S. Library of Congress, ANNUAL REPORT, 1968) The National Library of Medicine began its photoduplication service in 1939; and by 1956, when it was filling about 85,000 orders annually, it decided to treat photoduplication and interlibrary loans as a single service. (Kurth) The Library of Congress began conducting an experiment last year with a regional switching center for interlibrary loan. The Bibliographical Center for Research, Rocky Mountain Region, Inc., in Denver will handle requests via teletype transmission on a regional basis. The requests are switched to LC if they cannot be filled regionally. (The Bibliographic Center for Research)

The teletype is now widely used in this country. One of the first teletype hook-ups was between the public libraries of Racine and Milwaukee in 1949. (Uridge) A library telecommunications directory, updated through July 1968, contains 416 listings of libraries in the U.S. and Canada using teletype for interlibrary communications. (Overhage)

The teletype is only one of the many new forms of telecommunication which are being used for interlibrary loan service. "The first library demonstration of facsimile transmission was in 1948, when an RCA system called Ultrafax was used to transmit the microfilmed text of GONE WITH THE WIND from Washington's Wardman Park Hotel to the Library of Congress in two minutes and twenty-one seconds by microwave." (18)

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(18) Heron, p. 9.

The Atomic Energy Commission developed another telefacsimile system using broad band transmission equipment in 1950. About ten years later, a number of experiments began under the sponsorship of the Council on Library Resources These experiments have tested closed circuit television, the Xerox Telecopier, Stewart-Warner dictaphone equipment, and Xerox LDX (Long Distance Xerox). Several major problems of these systems have been identified: low quality of copy, high cost, inability to copy bound volumes, copyright difficulties, as well as the human factors of considerable time required to bring the book to the copier and a surprisingly long time for the requester to come in to pick up his copy. Until some of these difficulties can be overcome, telefacsimile will not be widely used for interlibrary loan.

Interlibrary loan has several inherent problems in addition to frequently inaccurate citations. First, the privilege has been abused often enough that it was necessary to specify in the code that requests are to be "limited to the unusual items which the borrowing library does not own and cannot readily obtain at moderate cost." Second, there is some risk of copyright infringement under present laws since it is very common now to photocopy materials rather than send the original. Third, as the population increases, the level of education in this country rises, libraries' costs rise sharply, and more books go "out of print," libraries will be pressed to serve a wider and wider audience demanding more and more specialized material. Thus, a heavier burden will be placed on the national library and the few research libraries with extraordinary collections, thereby raising the possibility of further restrictions or fees for borrowing. It will be necessary to develop formal local or regional lending networks and rely on telefascimile to avoid an imbalance in use of the national library's resources. The development of international interlibrary lending codes, first developed in 1954 by IFLA, will also play an

important role in alleviating the inequities in access to information.

COOPERATIVE EFFORTS IN AUTOMATION: Interlibrary cooperation in this area is too new to evaluate historically. Several hundred institutions are making efforts and having some success. Yet due to the very large additional expenditures required for major coordinated achievements, the principal contribution to such cooperation is the result of federal efforts in this field. Under federal libraries above were described LC's King report and the MARC projects. In March of 1969 a regular MARC distribution service was inaugurated covering all English language publications cataloged by LC. Seventy-eight libraries are currently participating. (MARC Editorial Office) Due to the success of MARC, a project to convert all the 1968 and 1969 English language records into machine-readable form was inaugurated in mid-1969. This program, called RECON (Retrospective Conversion) will also test the possibilities of converting older English and other Roman alphabet publications. (Grant to Library of Congress)

The New England Library Information Network, termed NELINET, a regional library automation project, is sponsored by the CLR and administered by the New England Board of Higher Education. On the basis of a system study of six New England universities, the regional center began in 1967 to provide three main services to these libraries: a machine readable catalog data file, catalog data file searching, and the production of catalog cards, book pockets, and book labels. The requests are processed in the central processing center in Cambridge, Massachusetts over Dataphone lines and the products are mailed to the libraries. MARC is the network's communications standard. (Nugent)

The first major collaborative effort in automation has been discontinued. The Columbia/Harvard/Yale/ Medical Library Computerization project which ran from 1962 to 1966 was the first

cooperative on-line information retrieval system among universities. The project was designed to use an on-line system for both production of catalog cards and retrieval of bibliographic information. "Harvard officially withdrew because of other priorities at its library; Columbia did some cataloging; but it is Yale that has most strongly continued on its own." (19)

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(19) Ups and Downs, p. 129.

Yale ultimately stored over 12,000 titles and used the information for accession lists and catalog card production. The departure of the project director, storage costs, and technological problems were other factors which prevented the project from succeeding.

The second project, the Chicago/Columbia/Stanford Collaborative Library System Development Project (CLSD), was funded by the National Science Foundation to experiment with the feasibility of designing generalized automated systems through cooperative effort on elements of monograph acquisitions system. This fall the 18-month project will conclude. Because of geographic separation, the libraries have found scheduling of meetings to be difficult and distant communication awkward or misleading. Other problems were technical terminology, currency and completeness of written documentation, library procedural differences, differences in hardware and operating systems, individual project timetables, and limited availability of senior staff. On the plus side, understanding grew markedly and it was found that systems design specifications could be jointly developed, design components were defined, pitfalls avoided, and considerable detail was exchanged. (Fasana)

Eleven libraries are currently participating in the SUNY Biomedical Communications Network previously described in the section on Special Libraries. This network is designed to provide: a

computerized union catalog of textbooks and monographs in a consortium of libraries, lists of journals currently received, bibliographic searches of MEDLAR tapes, production of MeSH subject heading guide cards, current awareness or SDI services, recurring bibliographies, and direct interlibrary communication. The success of this substantial effort has been a result of "great drive, ingenuity, firm development support from IBM, and a commitment of funds by the State of New York ..." (20)

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(20) Bridegam, p. 106.

To date the experience in automation cooperation has indicated that it is necessary to determine precise attainable goals, have strong continuing administration, have financial support from a foundation or agency, and use technically feasible systems.

CONSORTIA: A consortium is defined as a contractual arrangement "whereby two or more institutions ... agree to pursue between, or among, them a program for strengthening academic programs, improving administration, or providing for other special needs." (21)

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(21) Moore, p. 4.

Such cooperation is not new, but the concept has had rapid growth in recent years. In 1934, a study of interinstitutional agreements indicated there were 113 such agreements. (Sanford) By 1965/66 there were 1,017 consortiums in existence with 123 of these having the library as the field of cooperation. (Moore) With increased enrollments in institutions of higher learning, more interdisciplinary courses, and funds stretched to the limit, universities and colleges have found reason to cooperate. This trend has been aided by the

development of regional associations which have encouraged cooperation, and federal legislation which has made funds available for cooperative efforts.

Most consortia are established for special purposes. The Southwest Academic Library Consortium was established in 1967 for the purposes of coordinating serial purchases, developing union lists, and improving interlibrary loan. Twenty academic libraries are participating and it has received a federal grant for its work. (Southwest Academic Library Consortium) Eight Texas colleges and universities signed a 1969 agreement to form a consortium for the purpose of filming Mexican provincial archives. Each institution is taking responsibility for filming in a geographical or functional area in collaboration with a Mexican institution. They will share this film through interlibrary loan. (Seminars on the Acquisition of Latin American Library Materials) Seven Minnesota college libraries and the James J. Hill Reference Library in St. Paul, in 1969, formed a non-profit corporation, Cooperating Libraries in Consortium, Inc. (CLIC) which will support joint purchasing of materials. (Consortium)

An example of a consortium to improve administration is the 1969 agreement by Iowa State University, the University of Iowa, and the University of Northern Iowa to appoint a Coordinator of Automated Library Services to study areas where coordinated system development might be possible. He is responsible to an Inter-institutional Committee of Librarians and the universities share the expenses. (Iowa University Libraries) And in Ohio, the Ohio College Association created a Library Center in 1967 to establish a computerized network center for Ohio's academic libraries which would ultimately become part of a national electronic network for bibliographic communications. (College Library Center)

All of the above consortia are local or regional arrangements. The first effort to create a national consortium was

the Interuniversity Communications Council (EDUCOM), formed in 1964. EDUCOM is a consortium of over 90 universities whose prime purpose is to promote the application of communication sciences in support of higher education. EDUCOM studied the desirability, feasibility and design of an educational communications system (EDUNET) at a summer conference in 1966 which proposed a national network connected by multi-media telecommunications and facsimile transmissions. (Summer Study) EDUCOM has done research for the National Library of Medicine and has recently completed a study on the technology required to establish a National Agricultural Land-Grant Information Newtork. (NAL/Land Grant Network)

The real significance of this trend toward consortia is the contractual nature of the cooperation, including a means for members to resign from the group when the group's purposes are no longer relevant for a particular institution. Most consortia ask for membership fees from the participating institutions, yet they are generally supported by federal money or a foundation grant. A distinct benefit of a consortium is the modest cost of participation for a much greater extension of resources and services. Thus, the consortium is an important form of library cooperation.

CONCLUSION

The history of interlibrary cooperation makes it evident that there are several conditions necessary for effective cooperation. First, there must be innovative individuals to identify the need for cooperation and to recommend a course of action, often through a

strong library association. Quite obviously the need must be clear and the anticipated results worth the effort. Second, the cooperative program needs the acceptance and leadership of at least one major institution. Third, the proposals for action need the monetary support of foundations or assistance from federal grants with realistic plans for continued financial support. Most forms of cooperation require rather modest funds, but not those based on sophisticated technology. Fourth, a suitable technology must be available when needed. Finally, the program needs the willingness of the participants to surrender a certain amount of self-sufficiency and independence. When all of these conditions are met, there appears to be no obstacle to cooperation.

One major problem facing interlibrary cooperation is geographic in nature. In order for libraries to store an increasing amount of material at distant locations, it is incumbent upon the librarian to assure that this material is locally available as quickly and as economically as possible.

Another constraint on the development of interlibrary cooperation is political in nature. Public support of libraries is still inadequate. Enabling legislation is limited and funding is generally modest. The fear of loss of independent action, personal status, and institutional pride is also strong in local and state institutions. Copyright is another legal constraint.

Cost is another major problem facing interlibrary cooperation. Where budgets are already stretched, any sizable innovation carries incremental costs that require additional appropriations -- new revenue must be found rather than existing funds diverted. For instance, in order to benefit from the developments of computer technology it is necessary to have very considerable additional funds. A large number of the major innovations in cooperation since 1956 have been funded by the Council on Library

Resources (CLR), a private corporation created and funded by the Ford Foundation, or by the National Science Foundation, or the U.S. Office of Education.

Technological barriers are another problem preventing more interlibrary cooperation. The lack of inexpensive computer storage, telefacsimile devices, a cataloger's camera, and inexpensive telecommunications have prevented the rapid local use of centralized collections and services or shared bibliographic data.

One more problem facing interlibrary cooperation is widely differing standards. Local variations in forms, cataloging codes, statistics, and professional standard makes interlibrary cooperation difficult. Many libraries using LC cards, for example, make costly changes in the data because they are unable or unwilling to accept it as a local standard.

The history of interlibrary cooperation has indicated some of the serious problems which still hamper interlibrary cooperation; it has also revealed some possible solutions. Some of the trends noted in this paper can suggest directions interlibrary cooperation might take in the future. Prototypes may be found in the Center for Research Libraries, the SUNY Biomedical network, LC's MARC service, the Rocky Mountain Bibliographic Center, and the consortium type of structure. It is important for libraries to be aware of cooperative needs, and to work together to develop extended services. Their future may depend upon it. Although there are several fiscal, technical, and political limitations to interlibrary cooperation, the trend of library history has been towards increasing interlibrary cooperation; and, when conditions are right, there appears to be no theoretical limit to such cooperation.

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